



## PATENT ABSTRACTS OF JAPAN

(11) Publication number: 05247015 A

(43) Date of publication of application: 24.09.1993

(51) Int. Cl. C07D295/08

A61K 31/495, C07D295/12

(21) Application number: 04083112

(22) Date of filing: 05.03.1992

(71) Applicant: NIPPON IYAKUJIN KOGYO KK

(72) Inventor: ADACHI JUN

ISHIDA MITSUGI

KIMURA TAKAHITO

TOGASHI MASAHIRO

NAGAI KATSUMASA

NAKAO TAKESHI

(54) NEW PIPERAZINE DERIVATIVE

COPYRIGHT: (C)1993,JPO&amp;Japio

(57) Abstract:

**PURPOSE:** To obtain a new piperazine derivative and its pharmaceutically permissible acid addition salt useful as a therapeutic or treating agent for ischemic cardiopathy.

**CONSTITUTION:** The objective piperazine derivative of formula I [ $R_1$  to  $R_5$  are H, halogen, alkyl, alkenyl, cycloalkyl, alkoxy, alkenyloxy, cyano, nitro, acyl or ester or two adjacent groups in  $R_1$  to  $R_5$  together, along with the benzene ring, form a condensed ring; W is O or  $NR_6$  ( $R_6$  is H, alkyl, alkenyl, acyl or sulfonyl); A is alkylene, alkenylene or alkynylene; B is alkylene or alkenylene] and its acid addition salt, e.g. 4-[4-(N-4-chlorophenylamino)butyl]-1-(6-nitroxyhexyl)piperazine. For example, the compound of formula I (W is O) is produced by providing a compound of formula IV from a compound of formula II and a compound of formula III (X is halogen) and then passing the resultant compound through compounds of formulas V and VI.

